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NASA Procedural Requirements

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(NASA Only)

Subject: Property, Plant, and Equipment and Operating Materials and Supplies

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Chapter 2. PP&E Policies for Valuation and Recognition

2.1 Overview

2.1.1 This chapter sets forth general principles, standards, and policies to assure compliance with statutory and regulatory requirements regarding the valuation and recognition of NASA's General PP&E. These requirements ensure effective financial control over NASA-owned PP&E. Chapter 7 of this NPR establishes the general principles, standards, and policies for NASA's Heritage Assets.

2.2 Capitalization Criteria

2.2.1 The following capitalization criteria apply to PP&E, including acquisitions, fabrications, modifications, and improvements. NASA shall capitalize individual items of PP&E acquired by construction, purchase, transfer, donation, or exchange which meet all of the following criteria:

- a. Have an acquisition cost of \$100,000 or more (except internal use software which has a capitalization threshold of \$1,000,000).
- b. Have an estimated useful life of two years or more (except internal use software with a useful life of five years).
- c. Are not intended for sale in the ordinary course of operations.
- d. Have been acquired or constructed with the intention of being used, or being available for use, by the Agency.
- e. Have a current or planned alternative future use on another project with a separate objective. Institutional acquisitions that are not defined as maintenance are presumed to have an alternative future use.

2.2.2 Items not meeting the above criteria or those specifically identified as prototypes or test articles, including ST and STE, are considered R&D costs and are expensed in the period incurred.

2.2.3 Bulk Purchase. PP&E items acquired as part of a bulk purchase that individually meet the capitalization criteria shall be capitalized in accordance with the policies established in this NPR. If the cost per item purchased in bulk does not meet the capitalization threshold, the bulk purchase will be

expensed in the period acquired. For bulk purchase of internal use software, refer to Chapter 5 of this NPR.

2.2.4 Collateral Equipment.

2.2.4.1 Collateral equipment includes building-type equipment, built-in equipment, and large substantially affixed equipment normally installed as a part of a facility project such as, construction or modification. Such a project is considered a single event for the purposes of determining whether the PP&E meets the capitalization criteria.

2.2.4.2 Collateral equipment is not severable and is considered part of the facility project through which it is installed. Therefore, the cost of collateral equipment shall be included in the value of the project in making the determination as to whether the project meets the capitalization criteria specified above. If the project meets the capitalization criteria, the value of the collateral equipment will be included in the capitalized value.

2.2.4.3 The replacement cost of collateral equipment or the addition of collateral equipment to an existing facility shall be treated as either a capital improvement or maintenance, depending on the circumstances.

2.2.4.4 Non-collateral equipment, when acquired and used in a facility or test apparatus, can be severed and removed after construction without substantial loss of value or damage to the equipment or the premises where it is installed.

2.2.4.5 Each non-collateral equipment shall be considered separately in relation to the capitalization criteria, and non-collateral equipment which meets the capitalization criteria will be recorded in the general ledger PP&E accounts.

2.2.5 Modifications.

2.2.5.1 Modifications to existing PP&E shall be capitalized and defined as capital improvements if the modification meets certain criteria.

2.2.5.2 NASA shall capitalize individual modifications as capital improvements which have a cost of \$100,000 or more, and meet one of the following criteria:

- a. Extend the useful life of the asset by two years or more.
- b. Enlarge or improve its capacity.
- c. Otherwise upgrade it to serve needs different from, or significantly greater than, those originally intended.

2.2.5.3 Facility modifications shall be:

- a. Identified on the AFUQ, NASA Form 1739.
- b. Assigned a unique WBS element(s) with the appropriate capital asset indicator(s) if it meets the capitalization criteria as a capital improvement. Capital improvements are capitalized and depreciated. Modifications that do not meet the capitalization criteria are expensed.

2.2.5.4 In situations where the acquisition of PP&E or modifications to existing PP&E are linked to an end item, the cost of such individual acquisitions or modifications shall be included in the cost of the end item. In these situations, the combined cost of the individual items that make up the end item is to be used in determining if the item meets the capitalization criteria.

2.2.5.5 Where a replacement occurs due to a capital improvement, the accounts shall be appropriately adjusted to remove the values of items replaced (where those original values are \$100,000 or more). If only a portion of the property is being replaced and that portion is not separately identifiable in the accounting records, the value of the replaced portion will be estimated and the accounts adjusted accordingly.

2.2.5.6 Removal of an item's recorded cost shall be treated as a separate accounting transaction from the recording of additions or replacements.

2.2.5.7 Replacements due to maintenance shall be expensed.

2.2.5.8 If an item's individual acquisition value is below \$100,000 when it is first acquired and it is not, therefore, originally capitalized, it shall not be capitalized later regardless of whether the value of all subsequent modifications results in a cumulative value of \$100,000 or more.

2.2.5.9 If a single subsequent modification meets the capitalization criteria, that modification shall be capitalized only in accordance with the capitalization criteria. Each modification will be considered a single event.

2.2.5.10 If a reduction in the capitalized value of an asset occurs as a result of a modification and causes the value of the asset to drop below \$100,000, it shall be removed from the general ledger accounts for capitalized PP&E.

2.2.6 Maintenance. Expenses incurred to maintain an asset in a useable condition do not meet the criteria for capitalization and are thus expensed in the accounting period in which the costs were incurred. SFFAS No. 6 states the following: "For purposes of this standard, maintenance is described as the act of keeping fixed assets in acceptable condition. It includes preventive maintenance, normal repairs, replacement of parts and structural components, and other activities needed to preserve the asset so that it continues to provide acceptable services and achieves its expected life. Maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than, those originally intended."

2.2.7 Incremental Launch Service Costs.

2.2.7.1 NASA shall: Capitalize incremental launch service costs associated with delivery of International Space Station components owned by the United States.

2.2.8 Costs and Benefits Associated with Barter Agreements.

2.2.8.1 NASA shall not capitalize any costs and/or benefits associated with barter agreements.

2.3 Valuation

2.3.1 Capitalized values shall include all costs incurred to bring PP&E to a form and location suitable for its intended use, (i.e., the total cost to NASA). For example, the cost may include the following, as appropriate for the type of PP&E capitalized:

- a. Labor and other direct or indirect production costs.
- b. Amounts paid to vendors or contractors, including fees.
- c. Transportation charges to the point of initial use.
- d. Handling and storage charges (for assets produced or constructed).
- e. Engineering, architectural, and other outside services for designs, plans, specifications, and surveys.
- f. Acquisition and preparation costs of buildings and other facilities.
- g. An appropriate share of the cost of the equipment and facilities used in construction work.
- h. Fixed equipment and related installation costs required for activities in a building or facility.
- i. Direct costs of inspection, supervision, and administration of construction contracts and construction work.
- j. Legal and recording fees and damage claims.
- k. Fair values of facilities and equipment donated to the Government.
- l. Material amounts of interest costs paid.

2.3.2 Costs of extended warranties shall be expensed at the time of payment and not be included in the capitalized value.

2.3.3 Where capitalized equipment is traded in for another piece of capitalized equipment, the capitalized value of the new asset shall be the acquisition cost, including the amount received for the trade-in.

2.3.4 NASA's General PP&E assets are presumed to have no residual/salvage value. As a result, residual/salvage value is set at zero when determining Net Realizable Value.

2.3.5 Transfers and Donations.

2.3.5.1 When PP&E is transferred from one NASA Center to another, the receiving Center shall record both the capitalized amount and accumulated depreciation previously reported by the sending Center.

2.3.5.2 Transfers of assets from other Government agencies with reimbursement that meet the capitalization criteria shall be recorded at the amount NASA is reimbursing the other Government agency. The manufacturer or original acquisition date provided by the other Government agency will be used as the PP&E's acquisition date.

2.3.5.3 Transfers of assets from other Government agencies without reimbursement that meet the capitalization criteria shall be recorded based on the net book value recorded by the transferring agency. If the value cannot be obtained, the item will be recorded at its fair market value at the time of the transfer, provided it meets the capitalization criteria. The manufactured date or original acquisition date provided by the other Government agency is to be used as the PP&E's acquisition date.

2.3.5.4 Donations of PP&E shall be valued at the estimated fair market value at the time of acquisition, provided it meets the capitalization criteria. If the estimated fair market value cannot be determined, other reasonable methods to identify the estimated value of the asset may be used.

2.3.5.5 In some cases, new PP&E or improvements to existing NASA PP&E are needed in order to perform the work required under a reimbursable agreement. The customer may request that NASA acquire the PP&E or make the capital improvements and include the cost in the total price of the reimbursable agreement. When NASA incurs the cost to acquire such PP&E or capital improvement, the cost is recorded as an expense and becomes part of the cost billed to the reimbursable customer. If, at the end of the reimbursable agreement, the Center CFO, in consultation with the Center Office of Chief Counsel, determines that NASA may appropriately retain such PP&E or capital improvement, the transaction to record the PP&E or capital improvement as a NASA asset is a separate transaction that has no effect on the amounts previously recorded for the reimbursable agreement. The asset(s) is to be recorded as follows:

a. If the reimbursable customer is a Federal agency, the improvement(s) or asset(s) will be valued at the depreciated value at the end of the reimbursable agreement. The transaction will be treated as a transfer, and the offset to the applicable asset account will be USSGL Account 5720, Financing Sources Transferred In Without Reimbursement.

b. If the reimbursable customer is a non-Federal entity, the asset(s) will be valued at the cost NASA paid to acquire it and bring it to a form and location suitable for its intended use under the reimbursable agreement. The transaction will be treated as an unconditional donation, and the offset to the appropriate asset account will be USSGL Account 5610, Donated Revenue - Nonfinancial Resources. (Accounting treatment as "donated" does not provide separate authority to accept such assets, which instead must be determined on a case-by-case basis.)

2.3.5.6 Borrowed or Loaned PP&E. PP&E loaned-in, including in-grants, from non-NASA organizations is not recorded in NASA's financial records. However, PP&E borrowed from another NASA Center shall be treated in accordance with the supporting documentation.

2.3.6 Found on Station.

2.3.6.1 Items found on station or items identified during inspections or inventories where original supporting documentation is not available shall be recorded as Found on Station and valued at their estimated value based on similar items, catalogs, or other reasonable estimates.

2.3.7 Work-in-Process (WIP).

2.3.7.1 NASA shall classify PP&E under construction (i.e., not complete) that meet the capitalization criteria as WIP. Direct and indirect capital costs related to the acquisitions, fabrications, and improvements incurred to bring the capital PP&E to a form and location suitable for its intended use will be accumulated in the WIP account.

2.3.7.2 PP&E meeting the capitalization criteria shall be segregated for tracking by unique WBS

elements with capital asset indicators. The costs accrued against the unique WBS element(s) will be recorded as WIP. Costs are accrued based on the structure of the acquisition or contract and include a variety of costing methodologies in accordance with NPR 9060.1, Cost Accruals, and NPR 9501.2, NASA Contractor Financial Management Reporting.

2.3.7.3 When PP&E being recorded in WIP is complete, beneficially occupied, or received, delivered, and accepted, the total capital cost recorded as WIP shall be transferred to capital PP&E. Individual components or parts of the PP&E that are complete will remain in WIP until the entire PP&E is ready to be transferred from the WIP account to an asset. The capital balances transferred from WIP must be supported by sufficient supporting documentation, and any variances between the amount transferred and the supporting documentation must be reviewed and approved by the Agency Director of Financial Management prior to processing any manual adjustments.

2.4 NASA Property in the Custody of Others

2.4.1 NASA-owned contractor-held PP&E may be NASA-furnished as Government Furnished property, or acquired, fabricated, or modified by the contractor.

a. Contractors are contractually required to report all NASA-owned PP&E on an annual basis utilizing the NASA Form 1018, NASA Property in the Custody of Contractors (NF1018). In addition, contractors with \$10 million or more in NASA-owned PP&E are required to report on a monthly basis through NASA's Contractor Held Asset Tracking System (CHATS) as contractually required. Contractors shall report the accumulated cost of identified capital PP&E as a separate line item on their cost reports in accordance with NPD 9501.1, NASA Contractor Financial Management Reporting System for all contracts awarded after October 1, 2007, that contain applicable contract clauses.

2.4.2 NASA-owned PP&E under grants and cooperative agreements provide out-grants of General PP&E in which NASA does not transfer the title of the property to the grantee. The grantee obtains the rights to use the PP&E during the period of the grant in accordance with the terms of the agreement. NASA will continue to own the General PP&E during the term of the grant and continue to account for the General PP&E in NASA's accounting system. For more details about the out-grant of NASA-owned real property, please refer to NASA NPR 5800.1, NASA Grant and Cooperative Agreement Handbook.

2.4.3 NASA-owned PP&E leased to non-NASA customers does not transfer title of the property to the lessee; the lessee obtains the rights to use the PP&E in accordance with the lease agreement. NASA will continue to own the PP&E during the term of the lease and continue to recognize and depreciate the PP&E in NASA's accounting system. For more details about Host-Tenant agreements between NASA and another organization that provide for the use of NASA facilities, institutional services, or for support services to the non-NASA customer Enhanced Use Lease Agreements (EUL), and policy on billing and collections under reimbursable agreements, please refer to NPR 9090.1, Reimbursable Agreements.

2.4.4 NASA-owned PP&E loaned to other Federal agencies remains NASA property. NASA will continue to own the PP&E during the term of the loan and continue to recognize and depreciate the PP&E in NASA's accounting system.

2.5 Recognition

2.5.1 Receipt of General PP&E.

2.5.1.1 In general, NASA shall recognize general PP&E when title to the asset passes to NASA. Title passage will occur either at the time of delivery and acceptance by a Government official or at an earlier contractually specified time.

2.5.1.2 In the case of fabricated or constructed PP&E, the PP&E shall be recorded as WIP until placed in service, or when beneficial occupancy occurs, at which time, the balance will be transferred to capital PP&E.

2.5.1.3 Capitalization of WIP shall not be delayed pending final acceptance of residual closeout work, such as punch lists.

2.5.1.4 For purchased equipment, the recognition date shall be based on the shipping terms of the contract or purchase order. This will be the date shown on the receiving and inspection report or

equivalent source document evidencing the receipt, passage of inspection, and acceptance by the Government unless the contract or purchase order provides other specific terms of title passage, such as after vendor installation and testing.

2.5.1.5 For construction or capital improvements of real property, capitalization shall begin on the date the PP&E are placed in service. This event is defined as the date on which the facility or improvement to a facility is available for use by NASA. The date the facility is accepted for use is known as the beneficial occupancy date.

2.5.1.6 For General PP&E assets acquired by a contractor on behalf of NASA, the recognition date shall be based upon delivery or constructive delivery either to the contractor performing the service or to a NASA facility. Delivery or constructive delivery must be based on the terms of the contract regarding delivery, receipt, and acceptance.

2.5.2 Disposal of General PP&E.

2.5.2.1 General.

2.5.2.1.1 Disposals of NASA PP&E may occur due to several reasons. The various methods of disposition will be executed in accordance with the applicable Federal regulations, and NASA policy and shall be accounted for according to the Federal accounting standards.

2.5.2.1.2 Excess PP&E. When the Agency determines that the General PP&E is no longer required for NASA's needs and decides to permanently remove, retire, or dispose of the asset, the asset shall be treated as excess property.

2.5.2.1.3 At the time the General PP&E is identified as excess, it shall be reclassified from General PP&E accounts to other appropriate asset accounts (Other Assets), along with associated accumulated depreciation, and recorded in an appropriate asset account at its expected net realizable value. NASA PP&E is presumed to have no residual/salvage value. However, no additional depreciation/amortization will be taken once such assets are removed from General PP&E in anticipation of disposal, retirement, or removal from service. General PP&E could also be deemed no longer in service when it has suffered damage or becomes obsolete and could be reclassified to other appropriate asset accounts (Other Assets) similar to excess PP&E.

2.5.2.2 Donation. Excess PP&E determined to be surplus to the needs of NASA are available for donation to other entities. NASA shall use the General Services Administration (GSA) and/or other approved transfer process and documents to accomplish the donation to other entities. General PP&E will be removed from NASA's books, along with the accumulated depreciation at the time the item is identified as excess, and will be recorded in the Other Assets account. Once the excess property is donated, the property will be removed from the Other Assets account and any loss incurred at the time of transfer will be recognized.

2.5.2.3 Sale of Surplus PP&E. Excess PP&E determined to be surplus to the needs of NASA and available for sale to the public are identified as surplus PP&E available for sale. At the time of the sale of the surplus PP&E, the transaction is recorded by removing the asset from the Other Asset account and recognizing any gains or losses on the disposition of the PP&E.

2.5.2.4 NASA-owned PP&E in the custody of contractors determined to be surplus to the needs of NASA and other Governmental agencies shall be disposed of in accordance with the provision of the FAR and NFS.

2.5.2.5 Abandonment. Abandonment is the method of disposition of PP&E with no commercial value as determined by an authorized NASA official. The timing of the abandonment (after or before the determination was made that the PP&E is excess) will determine when the disposal of the asset is recognized. If the capital PP&E is abandoned after it is being excessed, it shall be removed from the Other Assets account, and any loss on disposition of asset will be recognized. If the abandonment occurs prior to the PP&E being excessed, the abandoned PP&E will be removed from NASA's books, along with associated accumulated depreciation, and any loss on disposition will be recognized.

2.5.2.6 General PP&E assets that have been identified for permanent removal from service shall no longer be depreciated/amortized once it has been determined that the asset no longer contributes to the operations of NASA. The triggering event for disposal is the date the asset no longer provides service to the operations of NASA. The disposal date will represent the date on which the General PP&E asset, and

its accumulated depreciation/amortization are no longer reported under the General PP&E account on the financial statements.

2.5.2.7 The disposal start date is defined as the calendar date of a legally enforceable and recognizable obligation to complete the disposal action or the date the operation has ceased, whichever comes later. On this date, the PP&E's net book value is removed from the financial records and the corresponding gain/loss from disposition is recorded. For demolitions, this represents the demolition contract's start date. For transfers and sales, this represents the date on which the instrument is endorsed or operation is ceased, whichever comes later. For natural disasters, this represents the actual date of the incident.

2.5.3 PP&E Temporarily Not In Use. When General PP&E is temporarily removed from service or use due to its current inactive status with the expectation that the asset eventually will be returned to service or use, the PP&E's value shall not be removed from General PP&E accounts. It will remain in the General PP&E accounts and continue to be depreciated during the period of non-use. Standby status and mothballed status are two classifications of temporary inactivity; therefore, assets placed in either of these classifications will not be removed from the General PP&E account and will continue to be depreciated during the period of non-use.

2.6 Depreciation

2.6.1 General. NASA General PP&E assets are those assets that have a recorded cost that meet NASA capitalization criteria--often called "capital assets" or "fixed assets." NASA PP&E will be capitalized and, with the exception of land and land rights of unlimited duration, will be depreciated/amortized. Such capitalized amounts, as well as associated amounts of accumulated depreciation and depreciation expense, will be reflected in NASA financial statements.

2.6.2 Method of Depreciation. NASA policy is that the straight-line method of depreciation be used for all assets.

2.6.3 Depreciable Basis. NASA's PP&E is presumed to have no residual/salvage value and, therefore, residual/salvage value does not affect the depreciable basis in determining depreciation. Land is not subject to depreciation. Land rights that are for a specified period of time shall be amortized over the specified time period. When land and a building are purchased together, the depreciable basis for the building is the total purchase cost less the actual cost or estimated value of the land.

2.6.4 Commencement of Depreciation. The event that triggers the calculation of depreciation is the date of receipt shown on the asset receiving document or the date the asset is installed and placed in service (regardless of whether it is actually used). For real property assets, depreciation shall commence when the facility is capitalized and placed in service, regardless of whether the facility is fully occupied or in use.

2.6.5 Excess of Useful Life. If an asset remains in use longer than its estimated useful life, it shall be retained in the property accountability or management system, as well as the accounting records. The accounting records will reflect both its recorded cost and accumulated depreciation until disposition of the asset.

2.6.6 Changes to Useful Life. Factors such as financial and operational conditions, physical wear and tear, or technological changes can affect the useful life of specific PP&E items. Changes in estimated useful life shall be treated prospectively and accounted for in the period of the change and future periods. No adjustments will be made to previously recorded depreciation or amortization.

2.6.7 Calculation of Depreciation. Depreciation expenses shall be calculated based on the recorded capitalized cost and divided equally among accounting periods during the asset's remaining useful life based on recovery periods in Table 2-1 of this chapter.

2.6.8 Recovery Periods. Table 2-1 (below) prescribes the recovery periods (useful lives) that shall be used for depreciable General PP&E assets.

Table 2-1, NASA Recovery Periods for Depreciable General PP&E Assets

NASA RECOVERY PERIODS FOR DEPRECIABLE GENERAL PP&E ASSETS (Excludes Heritage Assets)		
Description of General PP&E Assets	Recovery Period	
	Initial Acquisition	Modification/Improvement
Agency-Peculiar Equipment	15 Years	
Other Equipment	5 to 20 Years depending on its nature.	
Buildings, Hangers, Warehouses, Fuel Storage Buildings, Air Traffic Control Towers, and Other Real Property Buildings	40 Years	20 Years
Other Structures and Facilities	15 Years	5 Years
Improvements to Leased Buildings and Other Real Property (Leasehold Improvements)	Remainder of Lease Period or 20 Years, whichever is less.	Remainder of Lease Period or 20 Years, whichever is less.
Land Rights of Limited Duration	Over the Specified Duration	
Internal Use Software	5 Years	
Shuttle Assets	Useful life will be based on fully depreciating these assets by September 30, 2010, at the expected end of the life of the Shuttle Program.	

2.7 Documentation

2.7.1 Supporting Documentation. When recording the acquisition/construction cost of NASA Capital PP&E, the dollar value assigned to the asset shall be supported by appropriate documentation. Entries to record financial transactions in general ledger accounts and/or supporting subsidiary property accountability records must be supported by adequate source documents that reflect transactions affecting NASA's investment in the PP&E. Center CFO offices are responsible for ensuring that supporting documentation exists for capital assets and shall maintain records for each capital asset. New acquisitions, fabrications, or capital improvements will be supported by adequate documentation of the valuation, ownership, and capitalization determinations.

2.7.1.1 Valuation. Prior to recording the acquisition/construction cost of NASA Capital PP&E, the dollar value to be assigned to the asset must be supported by appropriate documentation. PP&E acquired from external sources, such as vendors, must be supported by third-party invoices and/or cost reports. PP&E constructed or fabricated internally shall be supported by civil servant labor reports and/or material

reports.

2.7.1.2 Ownership. Prior to recognizing new acquisitions/construction as NASA Capital PP&E, supporting documentation, such as receiving reports, must be gathered to verify NASA's rights of ownership to the assets.

2.7.1.3 Capitalization Determination. A completed AFUQ, NASA Form 1739 must be maintained for all new Capital PP&E that clearly documents the decision to capitalize the asset.

2.8 Financial Records Retention

2.8.1 NASA Centers, Component Facilities, and Headquarters offices shall maintain capital asset documentation in accordance with the requirements of NPR 1441.1, NASA Records Retention Schedules.

2.9 Environmental Liabilities Related to PP&E

2.9.1 For environmental/cleanup costs liability associated with removing, containing, and/or disposing of PP&E in accordance with SFFAS 6, refer to NPR 9260.1, Revenue, Unfunded Liabilities and Other Liabilities.

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